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ABSTRACT

The Academic Council at Hazard Community College in Kentucky applied the Continuous Quality Improvement (CQI) process to improve the college's method for class scheduling. Four specific CQI steps were applied: Focus, Analyze, Develop, and Execute. The first step was for the Quality Action Team (QAT) to focus on making a clear written statement of scheduling problems. The analysis step found ineffective coordination among division chairs; little or no proofing for errors or conflicts; and lack of adherence to deadlines. Developing a plan for solving these problems was the next step. The team agreed that the plan would: (1) use a master matrix to show utilization of all classes, rooms, and times; (2) involve faculty, staff, and students to gain their commitment to forward planning and minimize changes; (3) build a student-focused schedule; (4) prepare a timeline that would allow for necessary changes, editing, and printing; and (5) increase coordination with other college units. The execution of the plan is scheduled for Fall 1994. The QAT is confident about the schedule and agreed to allow only changes which came about as a result of new hires, or class cancellations. (KP)

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Continuous Quality Improvement -- Scheduling Hazard Community College

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Paper presented at "Leadership 2000," the Annual International Conference of the League for Innovation in the Community College and the Community College Leadership Program. (6th, San Diego, CA, July 17-20, 1994)

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CONTINUOUS QUALITY IMPROVEMENT -- SCHEDULING
HAZARD COMMUNITY COLLEGE
ALVIN J. MARROW, PH. D.

In the fall of 1993, I had the opportunity of being part of a Continuous Quality Improvement (CQI) workshop sponsored by the University of Kentucky Community College System. The workshop was designed to introduce the participants to CQI and to provide them with the skills to initiate the process at their respective institutions. The techniques taught at the workshop were adapted from a manual, Quality Action Teams, written by ODI, a management consulting and training company. Could I put CQI techniques into action at Hazard Community College? What would I look to improve? Who would be part of the Quality Action Team? Would others accept the concept? These and other questions began to go through my mind as I sat through the workshop. In fact, they stayed with me as I drove back to Hazard, a two-hour drive, and continued to be at the top of my agenda for the next few weeks.

The Continuous Quality Improvement Process:

The CQI process, as described by ODI, is designed to improve quality within an organization, such as a community college. It demands the full commitment of the organization and involves the formation of quality action teams. There are four specific steps to the process: Focus, Analyze, Develop, and Execute. The first step, or Focus (F), concentrates on identifying, selecting, and verifying problems within an organization. A Quality Action Team (QAT), consisting of individuals who are interested in assisting the organization with its problems, is formed to develop a written statement of a problem and to investigate its impact on the organization (ODI 2-11).

The second step is to Analyze (A) the problem to gather the data necessary to describe it. How can the problem be better understood? What are some of the possible causes? What other factors relate to the problem? How does the problem impact the institution? Are there data that can be used as a baseline for measurement?

Answers to these and other questions are necessary for the QAT to start at a point of reference and to be able to develop a plan that will show improvement on a continuous basis (ODI 2-11).

The development of a plan is the third step in the process. The QAT must Develop (D) a plan of action to be able to solve the problem. What are some possible solutions? Which one best fits the institution? Will the team be able to get institutional support? Who has to be part of the solution to generate "buy-in"? What is the plan for implementing the solution? A clearly defined plan for implementation must be developed to include a timeline with specific checkpoints to measure progress. No matters should be left undone in the development of this step (ODI 2-11).

The last step of the process is to Execute (E) the plan. This final step is the real test of the process, "where the rubber meets the road." The plan developed in the third step listed above now becomes operational, and the QAT must work to get full support from the other constituents at the institution. The team must coordinate the execution of the plan and make sure that it is completed in the manner desired. Throughout the execution step, the team has to keep its ears open to listen for feedback and to begin monitoring the impact of the plan. When completed, the team must measure results based on the feedback and be prepared to make modifications if necessary (ODI 2-11). Thus, through the process of FADE, continuous improvement in solving a specific institutional problem can be assured.

A Problem -- The Scheduling Process:

For a number of semesters, the Academic Council at Hazard Community College had been putting a class schedule together that did not represent the true offerings at the college. The schedule that was generally prepared three to four months in advance of the semester did not resemble the one used by students during registration. The fall

schedule, for instance, which was published in April, would have numerous course, instructor, classroom, and time changes when students came to register in August. Courses that were listed as staff often could not be filled. Faculty who had specialities and desired to teach specific courses would, on occasion, find new employment elsewhere. Some faculty who needed to sign up for graduate courses at the University of Kentucky would have to request changes to the schedule. Limited facilities also placed restrictions on labs and large lecture classes. Reduced loads for some faculty added to the unforeseen changes and created a juggling act for division chairs. Compounding these uncertainties were the numerous student issues -- the desire for all classes to be taught on a Monday, Wednesday, Friday or Tuesday, Thursday, Friday sequence; the need for morning classes only; the insistence on only a specific instructor for a course -- which were, in some cases, absurd, but nonetheless still important.

During an open session of the Academic Council in the fall of 1993, the council members decided to form a Quality Action Team that would focus on the problem of scheduling. The scheduling process had to be improved to better meet the needs of students, faculty, and staff. It had, over a five-year period, been a point of continuous confusion and frustration because of the many changes that always seemed to occur; now faculty, staff, and students were calling for improvement. The members of the QAT, which consisted of the division chairs, the Assistant Dean for Evening and Off-Campus programs, a representative of the Office of Student Affairs, and the office assistant for Academic Affairs, felt that by working together, they could focus on the problem, overcome the many obstacles, and work to improve the process.

Application -- FADE

The first step for the QAT was to focus (F) on making a clear written statement of the problem. The QAT met in a brainstorming session and began to discuss the areas of

confusion and frustration -- course, room, and instructor changes; space limitations; high and low demand classes; time restrictions; schedule readability; advanced registration; faculty preferences; professional development requirements; coordination among other college units; and dollar constraints. From the brainstorming session, the QAT developed a statement of the problem indicating that "...the current class scheduling process...needs to be improved to meet the needs of students, faculty, and staff (Quality Action Team -- Scheduling 1). The QAT also developed an expected outcome -- "A scheduling process that meets the demands of faculty and students and improves the utilization of space, time, and class offerings" -- that could give the team direction and be evaluated after the new scheduling process was implemented (Quality Action Team -- Scheduling 1).

With the statement of the problem clearly defined, the QAT turned to the second step of the process -- Analysis (A). The office assistant for Academic Affairs gathered data from previous scheduling periods and shared them with the team. She had collected data on class cancellations, course additions, instructor changes, room and time changes, and capacity variances for two years (Engle 1). The figures were astounding! In fact, it was quite apparent that as soon as the printed schedule came out, changes began to occur. Such problems as ineffective communication and coordination among division chairs, little or no proofing for errors or class conflicts, a lack of adherence to deadlines, and a plethora of last minute changes were quite apparent. All of these problems tended to generate confusion among students and faculty, which in the end, undermined the credibility of the entire scheduling process. The team discussed the problems, their possible causes, and their impact on the institution. The brainstorming session had set the stage for the development of a plan to improve the process.

Developing (D) a plan was a big task for the QAT. Where should the team start? How could it address all the problems identified in the Analysis stage? Could the team

get the faculty, staff, and students to "buy-in"? These and many other questions arose as the team met to develop its plan of attack. After a lengthy discussion, the team agreed that the plan for improving the scheduling process would include the following general criteria: (1) a broad approach to scheduling incorporating the use of a poster board or computer print-out to show the utilization of all classes, rooms, and times; (2) the involvement of faculty, staff, and students, thus gaining their commitment and minimizing changes; (3) the building of a student-focused schedule; (4) the preparation of a timeline that would allow for necessary changes, editing, and printing; and (5) the increased coordination with other college units(Quality Action Team -- Scheduling 1). The team established a timeline that was sufficient to address each of the criteria, set up a schedule of meetings, and began to execute its plan.

The first major point of contention was the use of a broad visual that would allow for all classes, times, and spaces to be seen. One suggestion was to use a massive plexiglass poster board that could be displayed in a conference room, openly visible to all members of the college community. Class duplications, time and space conflicts, day/evening and off-campus offerings, and faculty assignments could be easily identified and changed, if necessary, with the use of a grease pencil. Yet, the use of a poster board did not make sense since all classes were being entered in the IBM System 36 computer. Why not use the computer technology available and create a matrix that could be viewed equally to that of the poster board? With the help of the office assistant for Academic Affairs, a matrix was created showing the room number, time, days of the week (MWF or TRF), and room capacity (Engle 1). The matrix allowed the QAT to look at all available slots on two 8 1/2 x 11 pieces of paper. All classes could be evaluated based on student demand, program mix, course duplication, time offering, room capacity and utilization,

and evening/off-campus scheduling. No classrooms, with the exception of the science labs, were reserved for any specific division, and when empty slots were filled, the division chairs had to look for compromises and begin trading classes, times, and rooms to accommodate all sections. The unique part of the entire scheduling process was that student needs were the top priority. Classes were listed first, days and times coordinated, and rooms assigned according to size and class type. There was a genuine "give and take" throughout the entire process.

After the first couple of drafts, the division chairs were able to begin sharing the schedule with faculty. There were many excellent suggestions for change, some of which had not occurred to the division chairs. Some faculty had professional development requirements and had to take additional graduate work. Some faculty had suggestions about additional classes that were not indicated on the schedule. Some classes were poorly scheduled, such as English composition or math classes in the science labs, and had to be changed. The faculty input provided a broadened perspective to the schedule; it also provided a sense of faculty ownership in the schedule.

In addition to faculty input, the QAT solicited student preferences and comments. The Assistant Dean for Student Affairs, who was a member of the team, had a direct linkage with the Student Government Association. He asked for student input and received comments that related to specific courses and times. Students could now feel that they had a part of the scheduling process.

Staff ownership was built as a result of the timeline for preparation, changes, editing, and printing. Office assistants from both the academic and student affairs areas worked with the team to put the schedule in proper format, made numerous changes during the draft stages, and produced a slew of computer printouts. Their assistance in the process was invaluable.

In addition to staff ownership, the QAT worked closely with other administrative units in the college to coordinate activities to implement the schedule. Times for collecting tuition, filing for student financial aid, scheduling student advisement, and attending student success seminars were coordinated and placed in the scheduling booklet. In addition, the QAT asked the Assistant Dean for Student Affairs to design a new format for the booklet in order to make it more "user-friendly." Previous booklets contained only basic information and a listing of course offerings, both of which were often confusing. The QAT wanted a better booklet, one with graphics, larger printing, clearly identifiable symbols, information pages describing "How to....," a sample registration card, definitions of terminology and symbols, and a listing of subject headings in the body of the schedule. The QAT also wanted the booklet written in the second person to make it more appealing to students. Thus, the new booklet would enhance coordination among administrative units and help generate greater ownership in the process.

The final phase of the process is the Execution (E) of the plan. Unfortunately, I am unable to describe the outcome of the process at this time because it has not been completed. The execution of the plan is scheduled for the Fall '94 semester. At one of its final meetings, the QAT was confident about the schedule and agreed to allow only changes that came as result of hiring new instructors, the need for faculty to take graduate courses, or from room changes due to class cancellations. The extent of the allowable changes will be measured after fall registration when an evaluation of the process will take place. Some suggested issues for the evaluation instrument relate to: (1) the problems encountered during student advisement, (2) the convenience of class meeting times, (3) the readability of the schedule, (4) the number of high and low demand sections filled, (5) the number of evening/weekend/off-campus classes offered,

(6) the need for classes not offered, and (7) the quality and quantity of information offered in the schedule booklet. This and other information will be useful to the QAT as it designs future schedules and works to provide continuous quality improvement for the institution.

Conclusions

The CQI process of focusing, analyzing, developing a plan, and executing the plan can greatly assist an institution in its efforts to improve services to students and faculty alike. The scheduling process used at Hazard Community College is a good example of how a team can work together and move toward quality improvement. Starting with a blank sheet of paper is certainly a risk; however, the instructional teamwork, faculty and student involvement, and overall consensus building are surely worth the effort.

This paper was presented by Alvin J. Marrow, Ph.D., Dean of Instruction at Catonsville Community College (formerly Dean of Academic Affairs at Hazard Community College), in the Roundtable Discussion, "Continuous Quality Improvement: Applying the Process to Scheduling," at the Leadership 2000 conference in San Diego, California, July 19, 1994.

Endnotes

Engle, Shirley. "Schedule Changes Data." January, 1994.

_____. "Fall '94 Matrix." February, 1994.

"Hazard Community College Schedule of Classes, Fall 1994." April, 1994.

"Quality Action Team -- Scheduling." January, 1993.

Organizational Dynamics, Inc. Quality Action Teams. Burlington, Massachusetts, 1990.